

LISTING OF THE CLAIMS

1. - 17. (Canceled)

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18. (Previously Presented) One or more computer-readable media comprising computer-executable instructions that perform the following when executed by one or more computers:

presenting extensible markup language (XML) data of a first XML document in a user interface having a form display area; a component selection tool; and a data source area, wherein:

the form display area displays the XML data of the first XML document in an electronic form representation having one or more data-entry fields representing one or more nodes of the first XML document;

the component selection tool is selectable to permit a designer to insert and place components into the form display area for inclusion in the first XML document; and

the data source area displays the XML data of the first XML document in a hierachal tree representation concurrently with the electronic form representation of the first XML document in the form display area;

enabling one or more operations through interaction with a component in the electronic form representation;

receiving selection of an operation of the one or more operations; and
5 modifying the XML data of the first XML document corresponding to the component in the electronic form based on the received operation, wherein:

the act of presenting comprises determining that a node of the first XML document corresponding to the component is identified in a first element in a second XML document;

the act of enabling comprises determining that the operations are identified in a second element associated with the first element in the second XML document; and

the act of modifying the XML data causes modifications to the XML data to be concurrently reflected in the electronic form representation and the hierachal tree representation.

15 **19.** (Canceled)

20. (Canceled)

20 **21.** (Original) The media of claim 18, wherein the act of determining that the node is identified comprises determining that the first element comprises a character string of “xmlToEdit”.

22. (Original) The media of claim 18, wherein the act of determining that the node is identified comprises determining that a location of the node matches an XPath expression determinable from a value of an attribute on the first element.

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23. (Original) The media of claim 18, wherein the act of determining that the node is identified comprises determining that the first element comprises a character string of “item” and that a value associated with that character string is usable to determine an XPath expression matching a location of the node.

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24. (Original) The media of claim 18, wherein the act of determining that the operations are identified comprises determining that the second element comprises a character string of “editWith”.

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25. (Original) The media of claim 18, wherein the act of determining that the operations are identified comprises determining that the second element comprises a character string of “component” and a value associated with the character string, and using the value to determine the operations.

26. (Original) The media of claim 18, wherein the act of presenting comprises determining that the second XML document comprises a namespace having a namespace resource indicator having a character string of either “microsoft” or “infopath”.

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27. (Original) The media of claim 18, wherein the first XML document comprises data not represented with XML.

10 28. (Original) The media of claim 18, wherein the act of determining that the operations are identified comprises determining that the second element comprises an attribute indicating that the operations comprise insertion or deletion of the identified node, or of a sibling node to the identified node.

15 29. (Original) The media of claim 28, wherein the value of the attribute comprises a character string of “xCollection”.

30. (Original) The media of claim 28, wherein the value of the attribute comprises a character string of “xOptional”.

31. (Original) The media of claim 28, wherein the act of determining that the operations are identified further comprises determining: (a) that the second element indicates that the operations comprise insertion of the nodes; and (b) a location where the nodes are to be inserted based on one or more character strings in the first element, the character strings being treatable as an XPath expression.

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32. (Original) The media of claim 28, further comprising determining a location for the insertion with an XPath expression associated with a character string of “item” in the first element.

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33. (Original) The media of claim 28, further comprising determining the identified node or the sibling of the identified node using a child element of the second element, the child element comprising a character string “chooseFragment.”

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34. (Original) The media of claim 33, further comprising determining a location for inserting the identified node or the sibling of the identified node using an XPath expression associated with an additional character string of the child element.

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35. (Canceled)

36. (Original) The media of claim 18, wherein the act of determining that the operations are identified comprises determining that the second element comprises an attribute indicating that the operations comprise addition to or alteration of data within the identified node.

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37. (Original) The media of claim 36, wherein the act of determining that the second element comprises the attribute comprises determining that a value of the attribute comprises a character string of “xField”.

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38. (Original) The media of claim 37, wherein the act of determining that the operations are identified further comprises determining that the second element comprises a second attribute having a character string of “type”.

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39. (Original) The media of claim 38, wherein the act of determining that the operations are identified further comprises determining that the second attribute is associated with a character string of “rich” and the act of enabling one or more operations comprises enabling creation and modification of rich-text-data within the identified node.

40. (Original) The media of claim 38, wherein the act of determining that the operations are identified further comprises determining that the second attribute is associated with a character string of “plain” and the act of enabling one or more operations comprises enabling creation and modification of plain-text-data within the identified node.

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41. (Previously Presented) One or more computer-readable media comprising computer-executable instructions that perform the following when executed by one or more computers:

10 outputting a user interface having a form display area; a data source area; and a component selection tool;

15 presenting a first extensible markup language (XML) document in the form display area as an electronic form having one or more data-entry fields representing one or more nodes of the first XML document, wherein the component selection tool is selectable to permit a designer to select components for inclusion in the first XML document and place the selected components in the form display area;

presenting the first XML document in a hierachal tree representation in the data source area; and

20 enabling an operation to be performed on one of the nodes through its data-entry field, wherein:

the one node is identified in a ‘xmlToEdit’ element comprising a character string of “xmlToEdit” in a second XML document;

the operation enabled to be performed on the one node is identified in a child element of the ‘xmlToEdit’ element, the child element comprising a character string of “editWith”; and

when performed, the operation enabled to be performed causes a modification of data corresponding to the one node in the first XML document, the modification being concurrently reflected in the electronic form and the hierarchal tree representation.

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42. (Previously Presented) The media of claim 41, wherein the one node is identified by an XPath expression associated with a value of an “item” attribute in the ‘xmlToEdit’ element.

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43. (Previously Presented) The media of claim 41, wherein the operation to be performed is identified by a value of a “component” attribute in the child element.

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44. (Previously Presented) The media of claim 41, wherein the act of enabling the operation comprises enabling the operation only if the electronic form comprises a representation of a context node, and wherein the context node is identified in a “container” attribute of the ‘xmlToEdit’ element.

45. - 49. (Canceled)

50. (previously presented) A computer-implemented method comprising:

5 outputting a user interface to present an extensible markup language (XML) document, the user interface including:

a form display area to display an electronic form representation of the XML document;

10 a data source area to display a hierachal tree representation of the XML document; and

a component selection tool selectively displayable and operable by a user to select components for the electronic form representation including one or more data entry field components for inclusion in the XML document;

15 responsive to user interaction with the component selection tool, receiving a selection of one or more components and arranging the one or more components in the electronic form representation of the XML document in form display area;

enabling one or more operations through interaction with the one or more components arranged in the electronic form representation of the XML document;

20 receiving a selection of one said operation of the one or more operations through interaction with one said component; and

modifying the one said component based on the received operation, wherein the act of modifying the one said component causes modifications to the XML document that are concurrently reflected in the electronic form representation in the form display area and the hierachal tree representation in the data source area.

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